

## PSYCHOTHERAPY APPARATUS AND METHOD FOR TREATING UNDESIRABLE EMOTIONAL AROUSAL OF A PATIENT

### BACKGROUND OF THE INVENTION

#### 1. Field of the Invention

The present invention generally relates to psychotherapy techniques for treating emotional problems and, more particularly, to a psychotherapy apparatus and method for treating undesirable emotional arousal of a patient.

#### 2. Description of the Prior Art

Many members of society currently demonstrating various undesirable (both pathological and non-pathological) behaviors are burdened with various emotional problems and emotionally-aggravated physical problems. Some examples of these problems are anxiety disorders, asthma, panic attacks, depression, anger, impotence, fears and phobias, grief, headaches, marriage problems, post Electro-Convulsive Therapy confusion, anxiety and memory loss, and post traumatic stress disorder (Vietnam and police service and child abuse and incest). The current undesirable behavior of a person provides connection of a current experience with a historical or more recent negative experience.

Heretofore, the primary mode of conducting psychotherapy for treatment of these problems has been by the use of one therapist with one patient or one or more therapists with a small group of patients. This mode of psychotherapy has been carried out mainly through verbal communication between therapists and patients. A significant drawback of relying primarily on verbal communication to conduct psychotherapy is that a large number of treatment sessions are needed to adequately deal with these problems. An unfortunate consequence of this is that the greater the overall quantity of time consumed in treatment the greater the cost and the fewer the number of persons that can be treated by a given population of therapists with proper qualification and clinical training. Another significant drawback is that some adults and many children are not verbal enough to successfully profit from verbal therapies.

Consequently, a need exists for a different approach to psychotherapy for treatment of emotional problems and emotionally-aggravated physical problems which approach will overcome the above-described drawbacks without introducing new ones in their place.

### SUMMARY OF THE INVENTION

The present invention provides a psychotherapy apparatus and method being designed to satisfy the aforementioned needs. The psychotherapy apparatus and method of the present invention employ a sequence of operative steps which preferably are conducted in an automated manner so as to thereby reduce the number of treatment sessions and increase the number of patients that can be handled by a given therapist. The apparatus and method are designed for treating an undesirable emotional arousal of a patient through coordinated presentation of visual and auditory stimuli to the patient and through control of the visual and auditory stimuli. Preferably, although not necessarily, the visual and auditory stimuli is controlled in response to monitoring and measuring the physiological responses of the patient to the visual and auditory stimuli.

Accordingly, the present invention is directed to a psychotherapy apparatus for treating an undesirable

emotional arousal of a patient. The psychotherapy apparatus basically comprises: means for presenting visual stimuli so as to be observable by a stationarily-positioned patient substantially at predetermined opposite extremes of the patient's range of eye movement; means for presenting auditory stimuli to the ears of the patient; and control means connected to the visual stimuli presenting means and to the auditory stimuli presenting means for operating the visual stimuli presenting means to alternately switch the visual stimuli between the predetermined extremes of the patient's range of eye movement and for operating the auditory stimuli presenting means to alternately switch the auditory stimuli between the patient's ears. The control means is capable of operating the visual stimuli presenting means and the auditory stimuli presenting means to cause alternate switching of the visual stimuli and auditory stimuli in a predetermined coordinated synchronous relationship with respect to one another so as to elicit in the patient a mental imagery of a given past negative experience of the patient and to eliminate the undesirable emotional arousal evoked in the patient by the given negative experience and to substitute a positive experience reinforcing a desired new behavior.

More particularly, the predetermined extremes are right and left lateral extremes of the patient's lateral eye movement. The visual stimuli presenting means includes a bank of lights located at each of the right and left lateral extremes of the patient's eye movement. The control means is operable to alternately blink the lights individually back and forth between the predetermined extremes of the patient's eye movement.

The auditory stimuli presenting means includes means for generating a sound and a pair of stereo headphones capable of being worn over the ears of the patient. The headphones are operable for receiving the sound and transmitting the sound to the patient's ears. The control means is connected between the headphones and the sound generating means and is operable to alternately switch the sound being transmitted through the headphones back and forth between the patient's ears.

The psychotherapy apparatus also comprises means disposed between the predetermined extremes of the patient's range of eye movement for displaying visual information toward the stationarily-positioned patient. The displaying means includes a video display monitor disposed between the predetermined extremes of the patient's range of eye movement. The control means is connected to the displaying means and is operable to cause the displaying means to display the visual information in a predetermined pattern.

Further, the control means includes means for monitoring and measuring at least one predetermined physiological response of the patient to the visual and auditory stimuli and producing an output representative of the response. The control means also includes means connected to the monitoring and measuring means for receiving the output thereof and for controlling, in response to the output, the visual stimuli presenting means and the auditory stimuli presenting means.

Also, the present invention is directed to a psychotherapy method for treating an undesirable emotional arousal of a patient. The psychotherapy method basically comprises the steps of: presenting visual stimuli so as to be observable by a stationarily-positioned patient substantially at predetermined opposite extremes of the